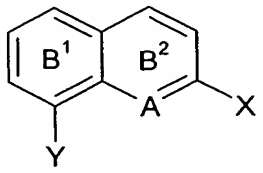
Use of quinaldine and naphthalene derivatives as crystallization modifiers

Abstract

The use of compounds of the general formula I

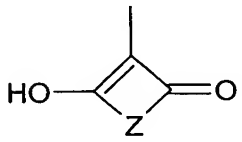


I

where

A is =N- or =CH-;

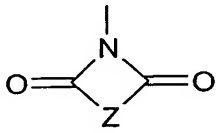
X when A is =N- is methyl or a radical of the formula IIa



IIa

or when A is =CH- is an R radical;

Y is an R radical or a radical of the formula IIb



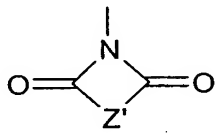
IIb

with either X being a radical of the formula IIa or Y being a radical of the formula IIb;

R is hydrogen, halogen, C_1-C_4-alkyl, $-SO_3H$, $-SO_3^-\ Me^+$, $-SO_3^-\ N^+R^1R^2R^3R^4$, $-SO_2NR^1R^2$, $-CH_2NR^1R^2$, $-CH_2R^5$, $-COOH$, $-COO^-\ N^+R^1R^2R^3R^4$, $-COOR^6$ or $-COR^6$;

R^1, R^2, R^3 and R^4 are each independently hydrogen; C_1-C_{22}-alkyl or C_2-C_{22}-alkenyl whose carbon chain may in either case be interrupted by one or more –O-, -S-, -NR^7-, -CO- or -SO_2- moieties and/or which may be substituted by one or more of hydroxyl, halogen, aryl, C_1-C_4-alkoxy and acetyl; C_3-C_8-cycloalkyl whose carbon skeleton may be interrupted by one or more -O-, -S-, -NR^7- or -CO- moieties and/or which may be substituted by one or more of hydroxyl, halogen, aryl, C_1-C_4-alkoxy and acetyl; hydroabietyl, abietyl or aryl; R^1 and R^2 or R^1, R^2 and R^3 may combine to form a 5- to 7-membered cyclic radical which contains the nitrogen atom and may contain further hetero atoms;

R^5 is a radical of the formula IIb'



IIb'

R^6 is one of the R^1 alkyl radicals;

R^7 is hydrogen or C_1-C_4-alkyl;

Me is an alkali metal ion;

Z and Z' are each independently arylene which may be substituted by one or more of halogen, -SO_3H, -SO_3^- Me^+, -SO_3^- $N^+R^1R^2R^3R^4$, and C_1-C_{12}-alkyl, and

the rings B^1 and B^2 may each be independently additionally substituted by one or more identical or different R radicals other than hydrogen,

as crystallization modifiers for organic pigments.